	Application No.	Applicant(s)
Notice of Allowability	10/003,952	DELMONACO ET AL.
	Examiner	Art Unit
	Shahid Al Alam	2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *telephonic interview on October 26, 2006*.

2. ☒ The allowed claim(s) is/are *5-7, 9-15, 25-27, 29-35, 45-47, 49-55, 61-68, 70-77, 79-86 and 88-90*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

         1. ☐ Certified copies of the priority documents have been received.

         2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

         3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

     * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

     (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

         1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

     (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

     Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 10022006

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *10262006* .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

SHAHID ALAM
PRIMARY EXAMINER

DETAILED ACTION

EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Rabindranath Dutta, Reg. No. 51,010 on October 26, 2006.

The application has been amended as follows:

In the Claims

Please amend claims as follow:

1-4. (Canceled)

5. (Currently amended) A method for performing an impact analysis of program

statements in a source code file that is one of a plurality of source code files, wherein

each program statement has at least one of an input parameter and output parameter,

comprising:

receiving selection of at least one program statement in one source code file; and

for each selected program statement, determining program statements

throughout the source code files having as one input parameter one program artifact

that is affected by the selected program statement, wherein recursive calls are made for

determining the program statements throughout the source code files having as one

input parameter one program artifact that is affected by the selected source program

statement, wherein determining the program statements having as one input parameter

one program artifact affected by the selected program statement further comprises:

for each previously determined program statement having as one input parameter one program artifact affected by the selected program statement, performing the steps of:

(i) determining the output parameter program artifact of the statement; and

(ii) determining program statements in the source code files having as one input parameter the program artifact that is the output parameter of the previously determined statement.

6. (Original)   The method of claim 5, wherein the source code files including the program artifacts affected by the selected program statement comprise components of an application program.

7. (Original)   The method of claim 5, wherein determining the program statements having as one input parameter one program artifact affected by the selected program statement further comprises:

determining program statements in the source code files having as one input parameter the program artifact that is one output parameter to the selected program statement.

8. (Canceled)

9. (Previously presented) A method for performing an impact analysis of program statements in a source code file that is one of a plurality of source code files, wherein each program statement has at least one of an input parameter and output parameter, comprising:

receiving selection of at least one program statement in one source code file; and

for each selected program statement, determining program statements throughout the source code files having as one input parameter one program artifact that is affected by the selected program statement, wherein determining the program statements having as one input parameter one program artifact affected by the selected

program statement further comprises determining program statements in the source code files having as one input parameter the program artifact that is one output parameter to the selected program statement, wherein determining the program statements having as one input parameter one program artifact affected by the selected program statement further comprises:

for each previously determined program statement having as one input parameter one program artifact affected by the selected program statement, performing the steps of:

(i) determining the output parameter program artifact of the statement; and

(ii) determining program statements in the source code files having as one input parameter the program artifact that is the output parameter of the previously determined statement, wherein determining the program statements having as one input parameter one program artifact affected by the selected program statement further comprises:

for each previously determined program statement having as one input parameter one program artifact that is the output parameter of one previously determined program statement having as one input parameter one program statement affected directly or indirectly by the selected source program statement, performing the steps of:

(a) determining the output parameter program artifact of the determined program statement;

(b) determining program statements in the source code files having as one input parameter the program artifact that is the output parameter of the determined program statement; and

(c) performing recursively the determination of program statements having as one input parameter one program artifact that is the output parameter of one previously determined program statement having as one input parameter one program statement affected directly or indirectly by the selected source statement.

10. (Original) The method of claim 5, further comprising:

outputting information on determined program statements and program artifacts affected by each selected program statement.

11. (Original) The method of claim 5, wherein the program artifact comprises a variable, Input/Output buffer or file.

12. (Original) The method of claim 5, wherein one program statement has one input parameter that is affected by the selected program statement if the output parameter program artifact of the selected program statement is the input parameter program artifact to the program statement.

13. (Original) The method of claim 12, wherein one statement further has one input parameter that is affected by the selected program statement if the output parameter program artifact of the selected program statement is the input parameter program artifact to the program statement or if the output parameter program artifact of one statement other than the selected program statement has as one input parameter one program artifact affected by the selected program statement.

14. (Original) The method of claim 5, wherein if the selected program statement comprises a call to a program routine comprised of a plurality of statements in one of the source code files, then one statement has one input parameter that is affected by the selected program statement if:

the output parameter program artifact of the selected source code statement is the input parameter program artifact to the statement; or

the input parameter of the selected source code statement is the input parameter program artifact to the statement.

15. (Original) The method of claim 5, further comprising:

accessing the source code files from a control management system.

16-24. (Canceled)

25. (Currently amended) A system for performing an impact analysis of program statements in a source code file that is one of a plurality of source code files, wherein each program statement has at least one of an input parameter and output parameter, comprising:

means for receiving selection of at least one program statement in one source code file; and

means for determining, for each selected program statement, program statements throughout the source code files having as one input parameter one program artifact that is affected by the selected program statement, wherein recursive calls are made for determining the program statements throughout the source code files having as one input parameter one program artifact that is affected by the selected source program statement, wherein the means for determining the program statements having as one input parameter one program artifact affected by the selected program statement further performs:

for each previously determined program statement having as one input parameter one program artifact affected by the selected program statement, performing the steps of:

(i) determining the output parameter program artifact of the statement; and

(ii) determining program statements in the source code files having as one input parameter the program artifact that is the output parameter of the previously determined statement.

26. (Original) The system of claim 25, wherein the source code files including the program artifacts affected by the selected program statement comprise components of an application program.

27. (Original) The system of claim 25, wherein the means for determining the program statements having as one input parameter one program artifact affected by the selected program statement further performs:

determining program statements in the source code files having as one input parameter the program artifact that is one output parameter to the selected program statement.

28. (Canceled)

29. (Previously presented) A system for performing an impact analysis of program statements in a source code file that is one of a plurality of source code files, wherein each program statement has at least one of an input parameter and output parameter, comprising:

means for receiving selection of at least one program statement in one source code file; and

means for determining, for each selected program statement, program statements throughout the source code files having as one input parameter one program artifact that is affected by the selected program statement, wherein the means for determining the program statements having as one input parameter one program artifact affected by the selected program statement further performs determining program statements in the source code files having as one input parameter the program artifact that is one output parameter to the selected program statement, wherein the means for determining the program statements having as one input parameter one program artifact affected by the selected program statement further performs for each previously determined program statement having as one input parameter one program artifact affected by the selected program statement:

(i) determining the output parameter program artifact of the statement; and

(ii) determining program statements in the source code files having as one input parameter the program artifact that is the output parameter of the previously determined statement, wherein the means for determining the program statements having as one

input parameter one program artifact affected by the selected program statement further performs for each previously determined program statement having as one input parameter one program artifact that is the output parameter of one previously determined program statement having as one input parameter one program statement affected directly or indirectly by the selected source program statement:

(a) determining the output parameter program artifact of the determined program statement;

(b) determining program statements in the source code files having as one input parameter the program artifact that is the output parameter of the determined program statement; and

(c) performing recursively the determination of program statements having as one input parameter one program artifact that is the output parameter of one previously determined program statement having as one input parameter one program statement affected directly or indirectly by the selected source statement.

30. (Original) The system of claim 25, further comprising:

means for outputting information on determined program statements and program artifacts affected by each selected program statement.

31. (Original) The system of claim 25, wherein the program artifact comprises a variable, Input/Output buffer or file.

32. (Original) The system of claim 25, wherein one program statement has one input parameter that is affected by the selected program statement if the output parameter program artifact of the selected program statement is the input parameter program artifact to the program statement.

33. (Original) The system of claim 32, wherein one statement further has one input parameter that is affected by the selected program statement if the output parameter program artifact of the selected program statement is the input parameter program artifact to the program statement or if the output parameter program artifact of one statement other than the selected program statement has as one input parameter one program artifact affected by the selected program statement.

34. (Original) The system of claim 25, wherein if the selected program statement comprises a call to a program routine comprised of a plurality of statements in one of the source code files, then one statement has one input parameter that is affected by the selected program statement if:

the output parameter program artifact of the selected source code statement is the input parameter program artifact to the statement; or

the input parameter of the selected source code statement is the input parameter program artifact to the statement.

35. (Original) The system of claim 25, further comprising:

means for accessing the source code files from a control management system.

36-44. (Canceled)

45. (Currently amended) An article of manufacture including code for performing an impact analysis of program statements in a source code file that is one of a plurality of source code files, wherein each program statement has at least one of an input parameter and output parameter, by:

receiving selection of at least one program statement in one source code file; and

for each selected program statement, determining program statements throughout the source code files having as one input parameter one program artifact that is affected by the selected program statement, wherein recursive calls are made for determining the program statements throughout the source code files having as one

input parameter one program artifact that is affected by the selected source program

statement, wherein determining the program statements having as one input parameter

one program artifact affected by the selected program statement further comprises:

for each previously determined program statement having as one input

parameter one program artifact affected by the selected program statement, performing

the steps of:

(i) determining the output parameter program artifact of the statement; and

(ii) determining program statements in the source code files having as one input

parameter the program artifact that is the output parameter of the previously determined

statement.

46. (Original) The article of manufacture of claim 45, wherein the source code

files including the program artifacts affected by the selected program statement

comprise components of an application program.

47. (Original) The article of manufacture of claim 45, wherein determining the

program statements having as one input parameter one program artifact affected by the

selected program statement further comprises:

determining program statements in the source code files having as one input

parameter the program artifact that is one output parameter to the selected program

statement.

48. (Canceled)

49. (Previously presented) An article of manufacture including code for

performing an impact analysis of program statements in a source code file that is one of

a plurality of source code files, wherein each program statement has at least one of an

input parameter and output parameter, by:

receiving selection of at least one program statement in one source code file; and

for each selected program statement, determining program statements throughout the source code files having as one input parameter one program artifact that is affected by the selected program statement, wherein determining the program statements having as one input parameter one program artifact affected by the selected program statement further comprises

determining program statements in the source code files having as one input parameter the program artifact that is one output parameter to the selected program statement, wherein determining the program statements having as one input parameter one program artifact affected by the selected program statement further comprises:

for each previously determined program statement having as one input parameter one program artifact affected by the selected program statement, performing the steps of:

(i) determining the output parameter program artifact of the statement; and

(ii) determining program statements in the source code files having as one input parameter the program artifact that is the output parameter of the previously determined statement, wherein determining the program statements having as one input parameter one program artifact affected by the selected program statement further comprises:

for each previously determined program statement having as one input parameter one program artifact that is the output parameter of one previously determined program statement having as one input parameter one program statement affected directly or indirectly by the selected source program statement, performing the steps of:

(a) determining the output parameter program artifact of the determined program statement;

(b) determining all program statements in the source code files having as one input parameter the program artifact that is the output parameter of the determined program statement; and

(c) performing recursively the determination of program statements having as one input parameter one program artifact that is the output parameter of one

previously determined program statement having as one input parameter one program statement affected directly or indirectly by the selected source statement.

50. (Original) The article of manufacture of claim 45, further comprising:

outputting information on determined program statements and program artifacts affected by each selected program statement.

51. (Original) The article of manufacture of claim 45, wherein the program artifact comprises a variable, Input/Output buffer or file.

52. (Original) The article of manufacture of claim 45, wherein one program statement has one input parameter that is affected by the selected program statement if the output parameter program artifact of the selected program statement is the input parameter program artifact to the program statement.

53. (Original) The article of manufacture of claim 52, wherein one statement further has one input parameter that is affected by the selected program statement if the output parameter program artifact of the selected program statement is the input parameter program artifact to the program statement or if the output parameter program artifact of one statement other than the selected program statement has as one input parameter one program artifact affected by the selected program statement.

54. (Original) The article of manufacture of claim 45, wherein if the selected program statement comprises a call to a program routine comprised of a plurality of statements in one of the source code files, then one statement has one input parameter that is affected by the selected program statement if:

the output parameter program artifact of the selected source code statement is the input parameter program artifact to the statement; or

the input parameter of the selected source code statement is the input parameter program artifact to the statement.

55. (Original) The article of manufacture of claim 45, further comprising:

accessing the source code files from a control management system.

56-60. (Canceled)

61. (Previously presented) The method of claim 5, further comprising:

performing recursively the determination of program statements throughout the source code files.

62. (Previously presented) The method of claim 61, wherein the program statements have as one input parameter one program artifact that is the output parameter of one previously determined program statement.

63. (Previously presented) The method of claim 62, wherein the one previously determined program statement has as one input parameter one program statement affected directly or indirectly by the selected source program statement.

64. (Previously presented) The method of claim 63, further comprising:

generating information on each program artifact referenced as an output parameter in at least one program statement.

65. (Previously presented) The method of claim 64, further comprising:

determining program statements in the source code file having as one input parameter one program artifact that is affected by the selected source program statement.

66. (Previously presented) The method of claim 63, further comprising:

determining program statements in the source code file having as one input parameter one program artifact that is affected by the selected source program statement.

67. (Previously presented) The method of claim 62, wherein the one previously determined program statement has as one input parameter one program statement affected directly by the selected source program statement.

68. (Previously presented) The method of claim 5, wherein the recursive calls are made during impact analysis to an impact analysis routine.

69. (Canceled).

70. (Previously presented) The system of claim 25, further comprising:
        means for performing recursively the determination of program statements throughout the source code files.

71. (Previously presented) The system of claim 70, wherein the program statements have as one input parameter one program artifact that is the output parameter of one previously determined program statement.

72. (Previously presented) The system of claim 71, wherein the one previously determined program statement has as one input parameter one program statement affected directly or indirectly by the selected source program statement.

73. (Previously presented) The system of claim 72, further comprising:
        means for generating information on each program artifact referenced as an output parameter in at least one program statement

74. (Previously presented) The system of claim 73, further comprising:
        means for determining program statements in the source code file having as one input parameter one program artifact that is affected by the selected source program statement.

75. (Previously presented) The system of claim 72, further comprising:

means for determining program statements in the source code file having as one input parameter one program artifact that is affected by the selected source program statement.

76. (Previously presented) The system of claim 71, wherein the one previously determined program statement has as one input parameter one program statement affected directly by the selected source program statement.

77. (Previously presented) The system of claim 25, wherein the recursive calls are made during impact analysis to an impact analysis routine

78. (Canceled)

79. (Previously presented) The article of manufacture of claim 45, wherein the code further performs recursive determination of program statements throughout the source code files.

80. (Previously presented)   The article of manufacture of claim 79, wherein the program statements have as one input parameter one program artifact that is the output parameter of one previously determined program statement.

81. (Currently amended)   The article of manufacture of [[of]] claim 80, wherein the one previously determined program statement has as one input parameter one program statement affected directly or indirectly by the selected source program statement.

82. (Previously presented) The article of manufacture of claim 81, wherein the code further performs:

generating information on each program artifact referenced as an output parameter in at least one program statement.

83. (Previously presented) The article of manufacture of claim 82, wherein the code further performs:

determining program statements in the source code file having as one input parameter one program artifact that is affected by the selected source program statement.

84. (Previously presented) The article of manufacture of claim 81, wherein the code further performs:

determining program statements in the source code file having as one input parameter one program artifact that is affected by the selected source program statement.

85. (Previously presented) The article of manufacture of claim 80, wherein the one previously determined program statement has as one input parameter one program statement affected directly by the selected source program statement.

86. (Previously presented) The article of manufacture of claim 45, wherein the recursive calls are made during impact analysis to an impact analysis routine.

87. (Canceled)

88. (Previously presented) The method of claim 5, wherein for each program statement referencing a modified variable as an input variable, an impact analysis routine makes a recursive call to the impact analysis routine.

89. (Previously presented) The system of claim 25, wherein for each program statement referencing a modified variable as an input variable, an impact analysis routine makes a recursive call to the impact analysis routine.

90. (Previously presented) The article of manufacture of claim 45, wherein for each program statement referencing a modified variable as an input variable, an impact analysis routine makes a recursive call to the impact analysis routine.

Allowable Subject Matter

2.   The following is an examiner's statement of reasons for allowance:

In view of the amendment above, claims 5 – 7, 9 – 15, 25 – 27, 29 – 35, 45 – 47, 49 – 55, 61 – 68, 70 – 77, 79 – 86 and 88 – 90 (re-numbered as 1 – 57) are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

3.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Shahid Al Alam whose telephone number is (571) 272-

4030. The examiner can normally be reached on Monday-Thursday 8:00 A.M.- 4:00

P.M..

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shahid Al Alam
Primary Examiner
Art Unit 2162

30 October 2006